

chart patterns is to quantify and to define the buying and selling pressure in the market. In many cases, traders using both approaches will arrive at similar conclusions. These are two different means to the same end, but many traders find a richness and depth in the Wyckoff approach that surpasses a simplistic focus on chart patterns. We trade the underlying buying and selling imbalance, which is what will move price in our favor if we are correct.

Reading Inside the Bars

One skill that is often overlooked in chart reading is the ability to look at a bar on a chart and to infer what price action might have created that bar. In practical terms, this means being able to look at a bar on one time frame and immediately understand the most likely lower time frame scenarios that could have created that bar. In almost every case, there are multiple possibilities, but some are much more likely than others. It is not necessary to be 100 percent correct on this; sometimes we will simply guess wrong, but working to develop this skill will greatly increase the trader's intuitive grasp of price charts. For instance, consider the single candle in Figure 1.11 with an empty body (meaning that the close was higher than the open) and with moderately small shadows on the top and bottom. There are three things we know with certainty about this candle: the close was higher than the open; at some point, the market traded lower than the open; and, at some point, it traded higher than the close.

Most people with a little bit of trading experience would assume the candle opened, traded down to put in the low, trended up to make a high, and backed off to close under

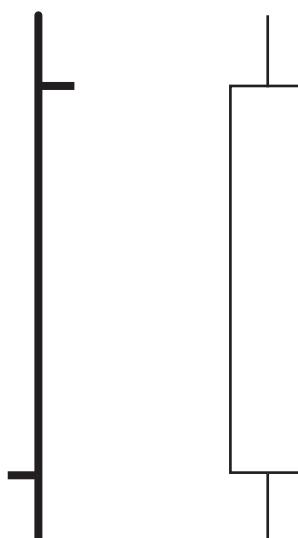


FIGURE 1.11 A Candle Is a Snapshot in Time—How Was This Candle Formed?

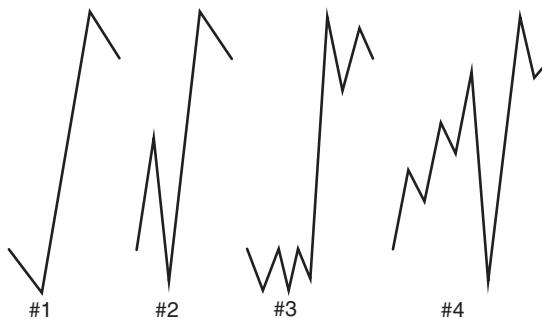


FIGURE 1.12 Some of the Many Possibilities of Lower Time Frame Action That Could Have Produced Figure 1.11

that high. This is the most obvious possibility (scenario #1 in Figure 1.12), but there are many others, some of which are also shown. Traders developing a sense for price action need to spend a lot of time contemplating all of the lower time frame scenarios that could produce each bar. Being locked into a single interpretation without considering the context can blind us to what might really be going on in the market.

Though charts contain a lot of noise and random action, there are points where structures within individual bars, or a small set of bars, are very important. One simple pattern to think about is that the location of the closing point relative to the high and the low of the bar may give some insight into the buying or selling conviction within that bar. For instance, a close near the high of the bar usually shows that buyers were in control going into the end of the time period. Yes, there are other possibilities and patterns that could have created the close near the high, but, more often than not, buyers were in control. Conversely, closes near the middle of the bar, visible as long shadows on candle charts, show a certain neutrality and lack of conviction. It is also worth considering the extreme case where several bars in a row close on their absolute highs. Many traders would assume that this is indicative of a very strong market, but, statistically, this condition more often indicates short-term exhaustion and at least a slight reversal—be careful of entering with the trend after several bars close on their highs.

Trend and Trading Range Bars Large bars relative to recent bars on one time frame most likely contain trends on the lower time frame, especially if the close and open are near opposite ends of the bars. Small bars on one time frame are probably trading ranges on lower time frames, and, in general, bars that have their opens and closes nearer to the center point of the bar are also more likely to have been trading ranges. This is a simple concept, but understanding this dynamic is a key to building intuition about price action and the interaction of time frames. There is much subtlety here, but these are the essential concepts. Figure 1.13 shows lower time frame trends and trading ranges within the three boxes in the left panel that correspond to the three higher time frame bars in the right panel. Do not accept price bars at face value. Always think deeply about what is going on behind the scenes, on lower time frames.

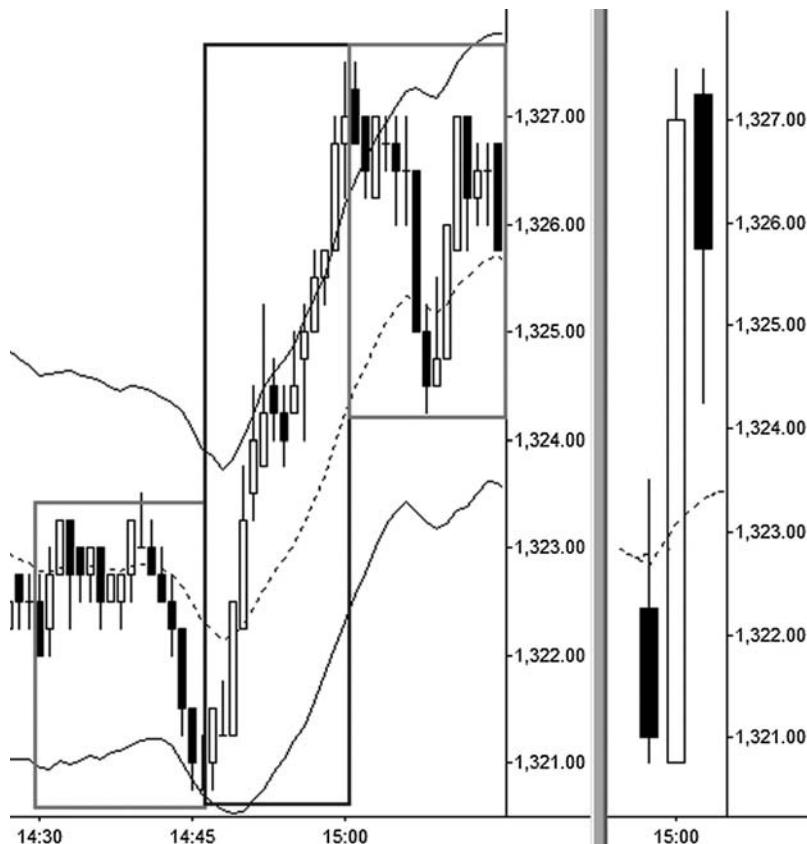


FIGURE 1.13 One- and 15-Minute S&P Bars, Showing Lower Time Frame Trading Range and Trend within Higher Time Frame Bars

The right panel of Figure 1.14 shows a daily chart of the E-mini S&P 500 futures at a time when the trend on that time frame was losing momentum. What are the signs on this time frame that suggest a loss of momentum? Each bar continues to make a higher high up into mid-April, but at a declining rate. We could characterize these as “reluctant highs,” to indicate waning momentum. In addition, the bars are becoming smaller, indicating that trading interest is drying up, and there are no more large trend bars (that open near the lows and close near the highs) in April. On each of the multiple time frame charts in this book, the lower time frame in the left pane expands on the highlighted area of the higher time frame chart on the right. In this case, the lower time frame tells the same story of loss of momentum, but in much more vivid detail. There are multiple failure tests above the highs, as the market spikes to new extremes and is unable to find the buying pressure to support itself there. Note that this reversal on the lower time frame could simply be subsumed into a trading time frame consolidation, but the lower time frame clearly shows the change in the buyers’ conviction.

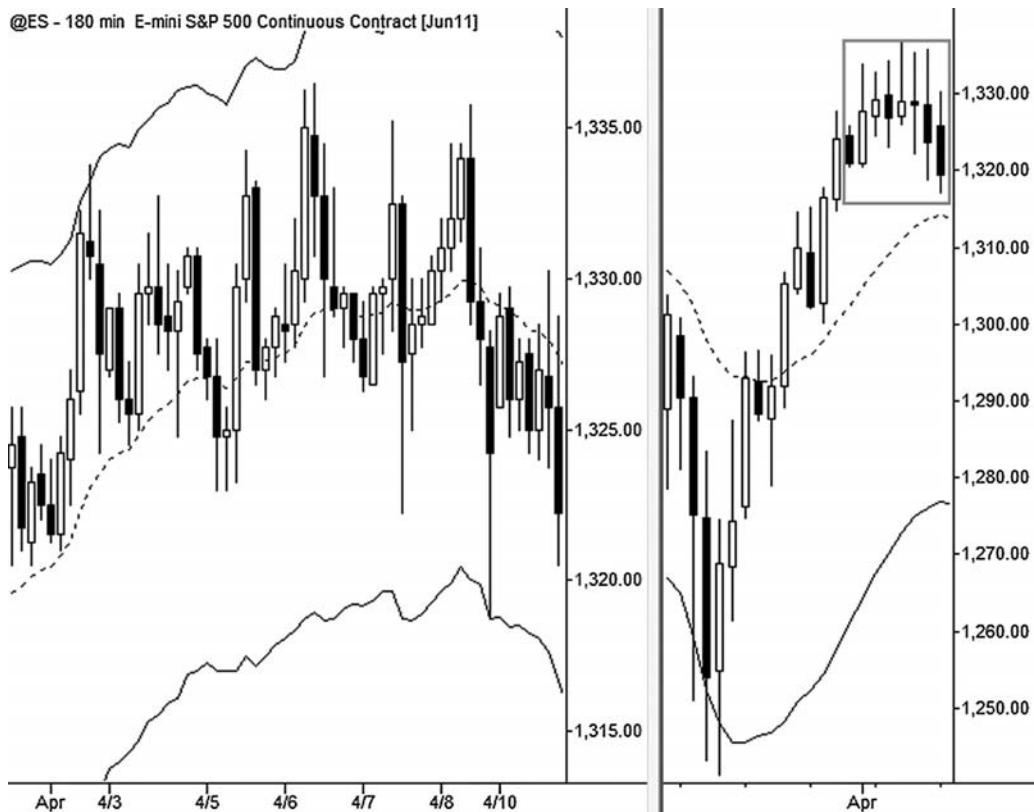


FIGURE 1.14 Three-Hour (Left Pane) and Daily S&P 500 Futures Charts

Notice that the lower time frame shows multiple tests and failures at the high. This level of resolution is lost on the higher time frame, which simply shows a gently rounding top.

Many traders focus on trading *pullbacks*. A pullback (also called a *flag* or *consolidation*) is a move against the prevailing trend. For instance, a pullback in a downtrend bounces against the trend and is an opportunity to enter a short position; a pullback in an uptrend is a decline. Most traders train themselves to see these structures easily, but pullbacks can also be hidden in higher time frames: one or two small bars that hold near the extreme of a trend leg (near the lows in a downtrend or the highs in an uptrend) are often a complete lower time frame pullback. As such, these simple one- or two-bar pullbacks (*high and tight flags*) are tradable structures in very strong trends, as in Figure 1.15. This is a common and important pattern.

Another important pullback pattern in an uptrend has several bars with downward closes separated by a single bar with an upward close. This pattern usually hides a complex pullback on the lower time frame, which is a three-legged structure consisting of an initial pullback followed by a small, failed attempt to resume the initial trend. From that second leg, the market turns down again to make another countertrend leg that is usually approximately as long as the first one. This is a very common pattern, especially



FIGURE 1.15 The Small Bars on the 15-Minute EURUSD Chart (Right Pane) Hide a More Significant Pullback on the 2-Minute Lower Time Frame

in extended trends, and will be explored in much more detail later. Figure 1.16 shows an example of a two-legged complex pullback. On the higher trading time frame, it is not so obvious and has to be inferred from the presence of one or two with-trend candles in the middle of the pullback, but the complete structure is clearly visible on the lower time frame.

One of the quantifiable tendencies of price motion is for markets to make directional moves out of periods of contracted volatility. Even if the normal expectation for a market is mean reversion and reversal (as it is in the short term for equities), there is usually at least a slight edge for continuation out of areas of volatility compression. One simple way to quantify volatility contraction is by looking for inside bars, which are bars whose entire range is enclosed within the range of the previous bar—in other words, a bar whose high is equal to or lower than the previous high and whose low is above or equal to the previous low. A series of multiple inside bars on one time frame usually contains a

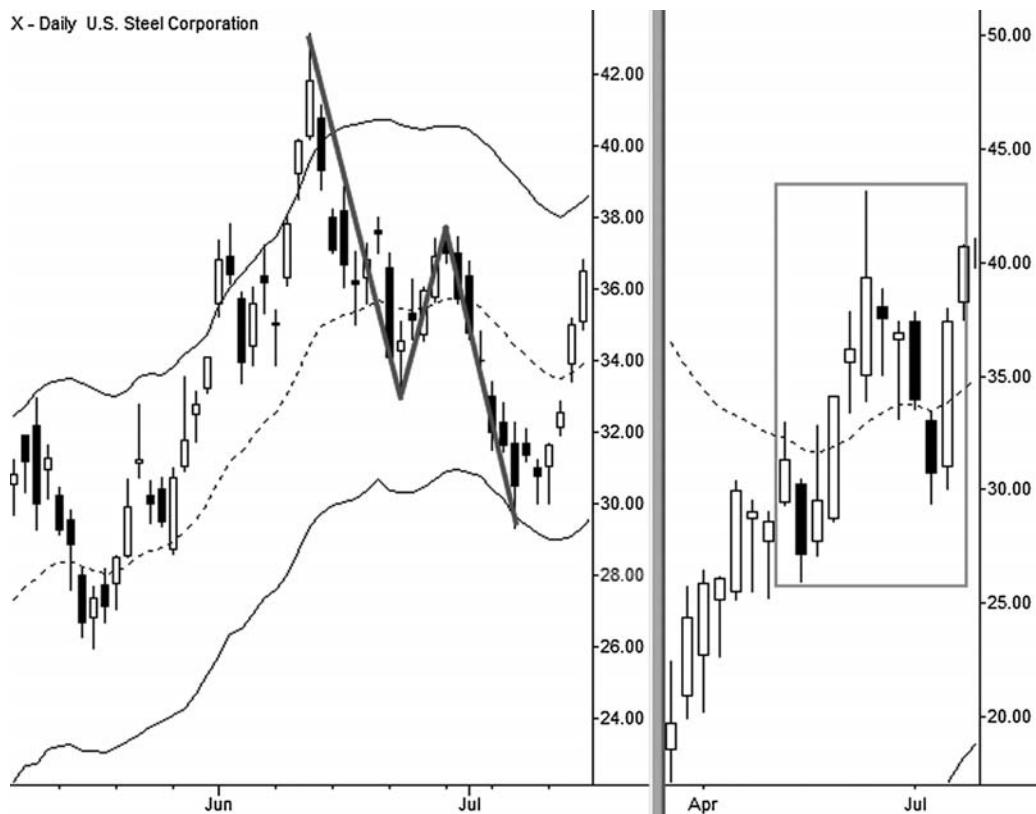


FIGURE 1.16 The Daily Chart of X (Left Pane) Shows a Clear Two-Legged Complex Pullback
The weekly chart hints at this structure, but it must be inferred from the single upward-closing candle in the middle of the pullback.

triangle on the lower time frame, which is a visual pattern that strongly suggests volatility contraction. Trading *within* triangles is usually a losing proposition, as the market is in equilibrium and the actual movement within the pattern is highly random. However, they can set up good breakouts with expectations for strong, extended moves away from the pattern. It is easy to overlook multiple inside bars (see Figure 1.17), but this is a powerful and subtle pattern that is worth some attention.

The examples in this section were deliberately chosen to be less than perfect because it is important to start thinking about these concepts in the context of actual market action, which is always less clear and noisier than we wish. Remember that charts are artificial structures that we impose on market data. They are useful because they organize the data, but we are always dealing with a trade-off between effective summarization and loss of detail. There is no perfect answer, but many of the limitations can be overcome if we work to constantly remember what the chart actually is, and to try to understand the buying and selling pressure that each bar represents. The chart is not the market; the chart is a *representation* of the market.

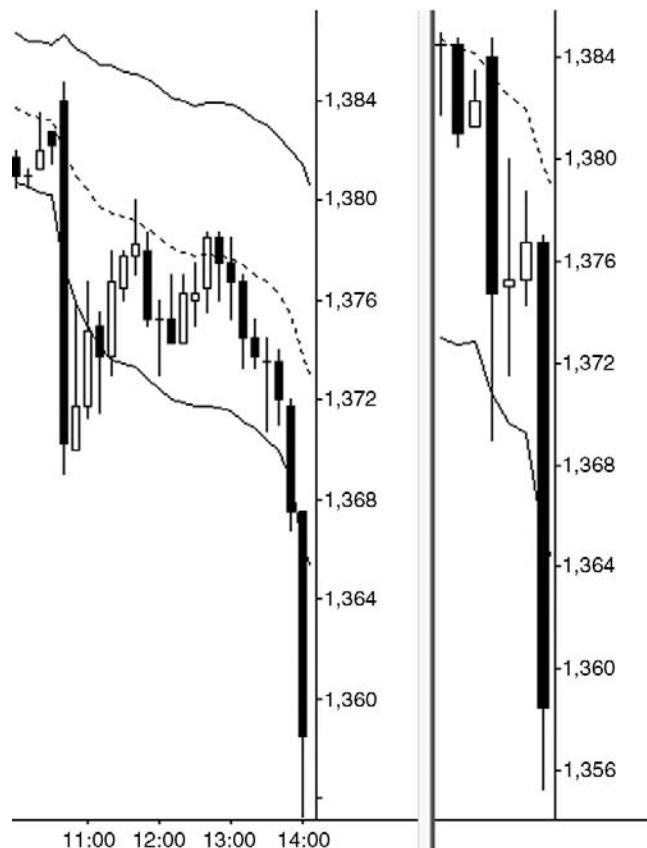


FIGURE 1.17 Multiple Inside Bars on the Hourly Chart of the E-mini S&P 500 Futures (Right Pane)
Hide a Clear Lower Time Frame Triangle on the 10-Minute Chart

CHARTING BY HAND

I started trading in the 1990s, in the twilight years of the old, classic paper chart books. A book would come in the mail at the beginning of the week, printed on newsprint; each day it was up to the trader to track down prices for each of the markets and update the charts by drawing a new price bar. At the beginning of the next week, a new book would arrive with the past week's prices filled in, and the process would repeat. Actually, in my very early trading days I did not even have the chart book, but I bought a pad of graph paper, went to the library, and started building charts from histories I found in back issues of newspapers. I did not realize the value of what I was doing at the time, but this process immersed me in patterns as they were emerging. There is something about physically drawing lines that engages a different part of the brain than looking at a screen does. Because of this work, I assimilated patterns quickly and developed a sense of the forces at work behind the patterns early in my development. When you are drawing open, high,

low, and close on each price bar, you will spend time during the day wondering what new configurations could appear at the end of the day, and thinking about how the day's trading might unfold to create those patterns.

Most readers are probably shaking their heads and laughing at this point, thinking that this is a quaint and hopelessly anachronistic practice, but I beg to differ. Modern computer charting has the advantage of breadth. It would simply not be possible to review a large number of charts every day without the aid of a computer to generate those charts; however, there is still great value in pencil and paper. This is not a practice that will reward you with immediate results and profits; it works on a much deeper and more profound level of perception, and it takes time. I would suggest that interested traders commit to doing this for a period of not less than two months, consistently, and then evaluate the impact of the exercise on your ability to read the market. I know of no better exercise to help a developing trader assimilate the patterns of the market and to begin building intuition. You will be amazed at the transformation in your vision.

There are two specific ways to do this exercise. One is to simply plot standard bar or candle charts, by hand, for whatever time period is under consideration. Every trader can at least do daily charts, but intraday traders might be able to do 15- to 30-minute time frames. Lower time frames will give much more exposure to patterns, but the time for contemplation is reduced. Above all, you want to pick a time frame that will allow you to make an unfailing commitment to this exercise. Doing it for a few days and then giving up will result in nothing but wasted time.

The other way is to construct a swing chart, which is also known as a *kagi* chart. In this type of chart, vertical lines indicate price movement (along the y-axis of the chart), while short horizontal lines illustrate the breaks between upswings and downswings. These breaks are defined according to some rule set, the specific choice of which is not that important. Traditionally, you may look for a specific dollar or point amount of a reversal off a high, and then flip direction, as in a standard point and figure chart. For instance, suppose a trader is working with a \$1.00 reversal; if the stock trades up to

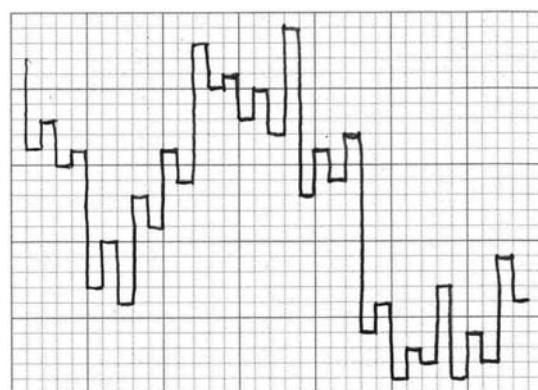


FIGURE 1.18 Example of Swing Charting (Kagi) by Hand

\$60.00 and then backs off to \$59.25, this is only a \$0.75 reversal off the high, so the only line on the chart is currently a vertical line that stops at \$60.00. If the market turns back up from \$59.25 and trades up to \$65.00, that original line is now extended to \$65.00 on the chart. Assume now that the market falls back to \$63.00, which exceeds the \$1.00 reversal threshold, so now a short horizontal line is plotted at \$65.00 (the high of the previous swing) to connect to the next downward vertical line, which now extends to \$63.00. This process is repeated, so the x-axis is not scaled for time or activity, but rather for specific reversal amounts off previous swings. (Consider what this type of chart tells us in relation to the previous discussions on pivots and length of swings.) It is also possible to define the reversal with other tools, such as reversing a specific multiple of the average range off the previous swing, J. Welles Wilder Jr.'s Parabolic SAR (stop and reverse), moving average crossovers, or whatever trend indicator you find appropriate. Figure 1.18 shows an example of this type of chart, drawn by hand. Do not underestimate the power of this simple charting exercise.